What is claimed is:

1. A gas component analysis system, comprising:

a first light source capable of emitting at least one beam of light having known emission intensities corresponding to a plurality of infrared, visible, and ultraviolet spectra;

a reflection unit;

a detection unit capable of receiving the beam and measuring received intensities corresponding to the plurality of light spectra; and

a processor capable of comparing the emission intensities and the received intensities and identifying a concentration of a component corresponding to the intensities.

2. The system of claim 1 further comprising:

a first off-axis reflector positioned to receive the beam from the first light source and reflect the beam toward the reflection unit, wherein the reflection unit is positioned to receive the beam from the off-axis reflector and reflect the beam; and

a second off-axis reflector positioned to direct the beam reflected by the reflection unit to be received by the detection unit.

3. The system of claim 2 wherein each off-axis reflector comprises a parabolic mirror.

4. The system of claim 1 further comprising a filter wheel positioned to spin about an axis and receive the beam from the first light source and pass the beam to the reflection unit in pulses.

5. The system of claim 4 wherein the filter wheel includes a plurality of filters, each of which substantially limits the passage of light to a predetermined spectral wavelength or range of wavelengths.

6. The system of claim 1 wherein the beam of infrared light travels along an optical path to the reflection unit, and further comprising:

a second light source capable of emitting a beam of ultraviolet light;

a neutral density filter positioned to direct the beam of ultraviolet light along the optical path to the reflection unit.

7. The system of claim 6 wherein the neutral density filter is further positioned to direct the beam of infrared light to the reflection unit.

8. The system of claim 1 further comprising a reflector wheel positioned to spin about an axis and receive the beam from the reflection unit and direct infrared components of the beam to the detection unit in pulses.

9. The system of claim 1 wherein the first light source comprises an integrating sphere.

10. The system of claim 1 wherein the reflection unit comprises a vertical retro-reflective unit that includes at least three mirrors.

11. The system of claim 1 wherein the first light source and the reflection unit are positioned so that the beam passes through a medium to be analyzed before reaching the reflection unit.

12. The system of claim 1 wherein the reflection unit and the detection unit are positioned so that the beam passes through a medium to be analyzed before reaching the detection unit.

13. The system of claim 1 wherein the detection unit comprises at least one of an infrared detector and one or more spectrometers capable of measuring received intensities corresponding to a plurality of non-infrared spectra.

14. A method of measuring concentrations of one or more components of a gas, comprising the steps of:

emitting at least one beam of light having known emission intensities corresponding to a plurality of infrared, visible, and ultraviolet spectra through the gas;

reflecting the beam, using a reflection unit;

receiving the beam, using a detection unit;

measuring received intensities in the beam corresponding to the plurality of light spectra; and

identifying a concentration of at least one component of the gas corresponding to a ratio of the emission intensities and the received intensities.

15. The method of claim 14 further comprising, before the reflecting step, filtering the beam and passing the beam to the reflection unit in pulses.

16. The method of claim 14 further comprising, before the detecting step, directing visible and ultraviolet components of the beam and directing infrared components of the beam to the detection unit.

17. The method of claim 14 wherein the identifying step is performed by a processing device that is programmed to perform the calculation of a component concentration using a formula corresponding to the Beer-Lambert law.

18. A gas component analysis system, comprising:

a means for emitting a first beam of infrared light having known emission intensities corresponding to a plurality of infrared spectra;

a means for reflecting the first beam;

a means for receiving the first beam;

a means for measuring received intensities corresponding to the plurality of infrared spectra; and

a means for identifying a concentration of a component corresponding to the received intensities.

19. The system of claim 18 further comprising a means for filtering the first beam into a plurality of pulsed spectral components.

20. The system of claim 18 further comprising:

a means for emitting a second beam of ultraviolet light corresponding to a plurality of ultraviolet spectra;

a means for reflecting the second beam;

a means for receiving the second beam; and

a means for measuring received intensities corresponding to the plurality of ultraviolet spectra.

21. The system of claim 18 further comprising:

a means for emitting a third beam of light corresponding to the plurality of visible spectra;

a means for reflecting the third beam; and

a means for measuring received intensities corresponding to the plurality of visible spectra.